

A revised key for *Cercococcyx* cuckoos, taxonomic status of *C. montanus patulus* and its occurrence in Zaïre

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Received 4 June 1993

When examining the *Cercococcyx* collections in the Royal Museum for Central Africa (KMMA), we discovered that the identification key in Chapin (1928, 1939), though useful for most adult birds, does not permit separation of all specimens. Below, we propose a revised key. Chapin gave a definition of this genus and a good account of its taxonomic history. Since he examined the holotypes of *mechowi* and *olivinus* himself, described *montanus* (a montane bird from the Albertine Rift) and accepted *patulus* Friedmann, 1928 (a migratory bird, breeding in southeastern Africa, not montane in general) as a race of *montanus*, we feel that these names are solidly based (for synonymy, see Chapin 1939). But the relationship between the four taxa is open to debate (see below).

In Fry *et al.* (1988), hereafter called *Birds of Africa*, nominate *montanus* is treated very briefly, more attention being given to *patulus*; furthermore, tail measurements provided therein for certain species in this genus are confusing. This is remarkable because according to M.P.S. Irwin (pers. comm.), the author of the Cuculidae section, the measurements were obtained from C.W. Benson. But Benson (1964) has another set for two species, which appears to be correct. We suppose that, apart from obvious errors, some very low values obtained on immature birds or specimens in moult were included in *Birds of Africa*. Our measurements, taken on material from Zaïre in KMMA, with additional specimens from elsewhere in Africa, on loan from the Royal Institute of Natural Sciences, Brussels (KBIN), The Natural History Museum, Tring (BMNH), the National Museums of Kenya, Nairobi (NMK), the National Museum of Zimbabwe (NMZ) and the American Museum of Natural History, New York (AMNH), are given in Table 1. Care was taken to measure the undamaged central rectrix.

Benson (1964) mentioned the fact that southern populations of *olivinus* tend to be larger and Chapin's (1928) measurements of central and western birds seem to confirm this; indeed, our largest specimens come from southern Zaïre and northern Zambia (the part of the range outside the equatorial forest belt), but since there is overlap, we do not recommend nomenclatural separation. There is some non-geographical variation in plumage of apparent adults, especially in *olivinus*: some individuals possess narrow white markings on secondaries and on the greater wing coverts, and also the extent of pale rufous barring on primaries and wing coverts is variable in several species. Another variable character is the buffish or white colour on the ventral side in *olivinus* (KMMA and AMNH specimens) and also in *patulus* (Keith 1968). It is not excluded that this variation is due to sexual

TABLE 1
Wind chord and tail length measurements in mm for *Cercococcyx* spp.

	<i>n</i>	range	Wing mean, s.d.	range	Tail mean (<i>n</i>), s.d.
<i>C. mechowii</i>					
juveniles	4	123–136		142–167	
immatures	5	127–138		172–195	
males	32	129–147	135.7, 4.1	170–197	185.1(30), 7.0
females	11	131–140	136.0, 4.3	172–195	182.2, 7.9
adults (sex?)	3	133–134		173–181	
<i>C. olivinus</i>					
juveniles	2	124–130		115–137	
immatures	3	130–149		162–193	
males	20	139–165	147.1, 6.5	157–205	176.1(18), 10.8
females	6	141–154	148.0, 4.5	165–183	178.4(5), 6.8
adults (sex?)	4	147–161		174–200	(3)
<i>C. m. montanus</i>					
immatures	6	127–136		162–179	
males	18	134–148	140.3, 3.6	180–190	186.3(13), 3.4
females	11	133–145	139.6, 3.8	182–187	184.3(10), 2.7
<i>C. m. patulus</i>					
immatures	2	140–142		175–177	
males	9	143–154	148.8, 3.8	175–190	181.0, 5.3
females	2	144–154		167–187	
adult (sex?)	1	148		181	

Notes. Data for *mechowii*, *olivinus* and *montanus* mainly from Zaïre; for *patulus* from Tanzania and Malawi, and two from Zaïre. Blake *et al.* (1990) give wing 143, tail 196 mm for a specimen of *m. montanus* from Burundi.

dimorphism, but the label data do not confirm this supposition. Our measurements (Table 1) indicate there is no sexual size difference.

Immature plumages

The nestling to immature stages have not been well described (which has hampered, e.g., field identification by such authors as Brosset & Erard 1986). We believe the adult plumage is acquired after one moult, although we do not exclude the possibility that the second plumage may be recognisable. Here follow the descriptions.

C. mechowii. The young bird is blackish on throat and breast and has narrow chestnut (colour 32 in Smithe 1975) edges to those feathers and also to those on head and neck (the indication "rusty" in *Birds of Africa* would be applicable to all *Cercococcyx* species; it appears also that the illustration therein is not altogether satisfactory, the immature "*C. mechowii*" in fact resembling *C. montanus*).

C. olivinus. In the first plumage, the young has a tawny (colour 38 in Smithe 1975) overlay on the whole of the head, shoulders and mantle. There are four young specimens from Zaïre, all with this general colour, especially as nestlings. Later, as fledglings, the colour is paler, the wing coverts and tail feathers showing tawny edges. At no stage is

the young barred dark brown and black as in *mechowii*, nor has it ever a black throat. The BMNH *olivinus* specimen from Kumba, Cameroon, 29 July 1950, is in the transitory stage towards adult, moulting directly from the juvenile plumage, wherefrom feathers are retained (apart from primaries, secondaries, tertials and rectrices, identified by wear) in the mantle and in the wing coverts, where the contrast in colour is very apparent.

Nominate *C. m. montanus*. The young has narrow cinnamon (colour 39 in Smithe 1975) edges to the dark brown head and mantle feathers. The throat is dusky, streaked with white and edged cinnamon; the breast is blackish, streaked in a pattern which Chapin describes as "lunulate". We have examined in KBIN a very young *montanus*, collected at Munga, Kivu, Zaïre, by Prigogine's collector on 26 March 1988 (wing 105 mm, tail 70 mm), matching the one described so well by Chapin (1928). The adult plumage is somewhat neotenic (Friedmann & Stager 1964); dorsally it is paler than the juvenile, but showing also fringes on the feathers which are basally more olivaceous than the juvenile ones. (No really young specimen of *C. m. patulus* was found.)

In *m. montanus* and *mechowii*, young birds have narrow rusty margins to the tips of primaries and secondaries; these last longer on the secondaries due to wear on primaries, and are still visible at the moment the bird has acquired a second generation tail.

Hence, in this genus the juveniles differ substantially although the adults are quite similar. The different age plumages were well examined in *Cuculus* by Bannerman (1921) and Friedmann (1930, 1948); less so in the present genus. No author after Reichenow (1903), except Friedmann (1948) for the sole species *olivinus*, mentions the white tips to all rectrices (which are broad) as being the best character to recognize the adult. In fact, the first generation tail feathers in *Cercococcyx* (and certain *Cuculus*, see Louette & Herroelen 1993) are narrow and end in a point, with a very narrow brownish-white tip, which wears off rapidly. Apparently, the tail moults often in a cuckoo's life, but sometimes irregularly, quite likely due to accidental loss of a feather (we examined four such adult females of *montanus*, 2 in June, 1 in August, 1 in December; apparently in the breeding period).

A revised key

- 1 Rectrices broad, with rounded or square tips, white-tipped (or pale rufous-tipped) for 5–8 mm; if head and mantle feathers with rufous margins, then barred not streaked on ventral side: adults 2
 - Rectrices pointed, not white-tipped; if prominent rufous or brownish margins on head and mantle feathers then ventral side streaked or lunulate: young birds 5
- 2 Adults:
 - Mantle olive-brown with a faint greenish-olivaceous gloss; mantle feathers with rufous edges 3
 - Mantle dark grey or olive-brown; plain 4

- 3 Ventral side pale buff; dorsal side rather pale *patulus*
Dorsal side dark with greenish sheen *montanus*
- 4 Crown and mantle dark grey; rufous barring on remiges and wing
coverts pronounced; barring on ventral side narrow; undertail
buffish orange; rump and uppertail coverts blackish, tipped and
flecked with white; wing about 75% of tail length *mechowii*
Mantle dark olive brown, crown somewhat greyish; remiges and
coverts may be barred, more often unbarred; ventral side pale buff
with wide barring; rump and uppertail coverts dark olive-brown,
lightly flecked white and buff; wing about 82% of tail length *olivinus*
- 5 Young birds:
throat pale; dorsal side tawny; ventral side streaked; *olivinus*
throat blackish 6
- 6 Crown, neck and breast feathers with chestnut edges *mechowii*
Cinnamon edges to crown, neck and mantle feathers *montanus*
(the young *patulus* is apparently unknown)

The taxonomic status of *patulus*

A good illustration of the adult *patulus* is given in Clancey (1971); it is similar in pattern but much paler than *montanus*, but the "neotenic" plumage in both taxa may not be a sign of close relationship.

As mentioned above, the nestling plumage of *patulus* is unknown. But there are two birds with pointed rectrices without white tips in our sample, although the rest of their plumage is much as in adults: (1) Shimoni, Kenya coast at 7°39'S, 39°23'E, 3 September 1976 in NMK, mentioned in Britton (1977), its label bears the note "skull incompletely ossified"; and (2) Idjwi Island, c. 2°S, 29°E, Zaïre, 15 August 1969, in KMMMA. If we assume that in this species the tail moults simultaneously with the rest of the plumage, as is the case in the other species in the genus, these two must be considered immatures (and unmoulted in body plumage?). But in nominate *montanus* the young bird has a blackish throat! If indeed the nestling plumages prove to be different, *patulus* and *montanus* should probably not be considered conspecific. But their songs seem to be very similar and distinct from that of *olivinus*, which was nevertheless considered to be their closest relative by Chapin (1939) and Stjernstedt (1984). Note that in measurements and proportion, *patulus* and *olivinus* are alike (and different from *montanus*). These two are similar in their eurytopy (for which a longer wing and a shorter tail seem appropriate), whereas the differentially proportioned *montanus* is stenotopic in montane forest and *mechowii* in lowland forest. For the time being we do not change nomenclature.

Occurrence of *patulus* in Zaïre

After comparison with specimens from southeastern Africa, it becomes clear that the specimens from Idjwi Island (mentioned above) and Gandajika (6°45'S, 23°57'E), 28 August 1951, are *patulus*. This taxon was previously unknown from Zaïre. In view of its migration in southeastern Africa, where it appears seasonally in Kenya (Britton 1977) and also in Zambia, Malawi and Zimbabwe, to breed (latest update in Taylor & Taylor 1988; also Vernon *et al.* 1989; M.P.S. Irwin), the dispersal towards Zaïre is not really surprising, although it has not yet been found close to the Zaïre border in Zambia or in Tanzania. Stjernstedt (1984) assumes that *patulus* is montane in the northern part of its range and not in the south, but we think this migrant was found at high elevations in Kenya and Tanzania because of the forested habitat, not because of altitude; in Zaïre there is no lack of good forest at lower elevation and *patulus* could be of more than irregular occurrence.

In contrast, judging from the number of specimens, *C. m. montanus* must be a common resident in its restricted montane haunts in the Albertine rift of Zaïre.

Acknowledgements

For the loan of specimens we are indebted to Leon Bennun, NMK; Christine Blake, AMNH; Kit Hustler, NMZ; Walter Roggeman, KBIN; Michael Walters, BMNH. Michael P.S. Irwin commented upon the *Birds of Africa* manuscript.

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Distributional and other noteworthy records for some Bolivian birds

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Received 26 June 1993

With respect to other countries in South America, our knowledge of the distribution of birds in Bolivia is unparalleled. That significant sections of the country remain little-known ornithologically is clear, but the fact that what information has been amassed is organized and readily accessible to all (Remsen & Traylor 1989) provides a unique frame of reference for further investigation. Remsen & Traylor (1989) documented records for all Bolivian birds on a departmental level, and indicated those departmental records included on the basis of tape recordings, photographs, and sight records. Several subsequent papers have continued to update Remsen & Traylor (1989) on a departmental level. Publication of range extensions for Bolivian birds is especially important not only because such work updates a relatively complete data base, but also because so many species of birds, from a diverse set of biomes including grasslands, chaco woodland, Amazonian rain forest, and the entire range of Andean habitats, reach a latitudinal or longitudinal range limit within Bolivia.

In this paper we present noteworthy distributional records of Bolivian birds observed primarily in February–March 1992 and March 1993, in addition to some earlier records not previously reported in the literature. Included are one new record for the country (a sighting of several Lesson's Seedeaters *Sporophila bouvronides*), 30 new departmental records, documentation of some species listed by Remsen & Traylor (1989) as sight records, and a few accounts discussing other aspects of the distribution of certain species. Photographs, video recordings and tape recordings documenting some of these records will be archived at VIREO (Visual Resources for Ornithology, The Academy of Natural Sciences, Philadelphia, Pennsylvania) and the Library of Natural Sounds (Cornell Laboratory of Ornithology, Ithaca, New York), respectively. Many of these records were corroborated, and